

Functional Safety Data

Manufacturer Rotork Fluid Systems S.r.l.
Via del Casalino, 6
I-55012 Tassignano (LU)
Product Pneumatic Actuator
Model / Series CP
Application designed to be used in a Safety Instrumented System for use in low demand application (Emergency Shut Down / Emergency Blow Down)

Reference Report TÜV NORD Assessment Report No. 278J06001/B

FUNCTIONAL SAFETY DATA

Reference Standard IEC 61508:2000, part 1 to 7
Functional Safety of electrical/electronic/programmable electronic safety related systems
Type A
Hardware Fault Tolerance 0
Mode Low Demand


λ_d [1/h]	λ_s [1/h]	$\lambda_{dd(ps)}$ [1/h]	SFF (Partial Stroke Test)	SFF (No Partial Stroke Test)
$<6,5 \cdot 10^{-9}$	$3,8 \cdot 10^{-7}$	$<4,9 \cdot 10^{-9}$	> 99 %	> 95 %

$$PFD_{AVG} = 6,9 \cdot 10^{-5}$$

See TÜV NORD Assessment Report No. 278J06001/B for complete tables of results.

As per these values, based on TÜV NORD Assessment Report No. 278J06001/B in the valid version, the Rotork Pneumatic Actuators Series CP can be used up to SIL 3 as a single device.
A user of the Rotork Pneumatic Actuators Series CP can utilize these failure rates in a probabilistic model of a Safety Instrumented Function (SIF) to determine suitability in part for Safety Instrumented System (SIS) usage in a particular Safety Integrity Level (SIL).

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